



# ENGINEERING, MANUFACTURING AND INDUSTRIAL TECHNOLOGY (EMIT)

*A Quarterly Newsletter for Teachers and Students Focusing on Recent Events and Developments in the EMIT Pathway*

Office of Career and Technical Education

February 2008

**HAPPY NEW YEAR 2008** to each and every one. I hope that this will prove to be a prosperous year for all; with focus on **HIGH ACHIEVEMENT!**

As always, the EMIT Newsletter is dedicated to locating educational opportunities and resources for teachers and students. If you find great leads, please forward them to the editor, Patricia Talbott, EMIT Pathway Consultant, [talbottp@michigan.gov](mailto:talbottp@michigan.gov). A great deal of time is spent locating these resources and it would be helpful if readers could send me a email periodically and let me know when they are able to take advantage of the resources to help their teachers and students.



## MANUFACTURING TRENDS

The Society of Manufacturing Engineers (SME) outlined on their website that The Bureau of Labor Statistics predicts that each year through 2012 employers will be seeking: a) 17,000 industrial and manufacturing engineers, b) 14,000 mechanical engineers, c) 14,000 engineering technicians, and c) 273,000 metal and plastic production workers. The pipeline of science and engineering talent is decreasing, while demand is increasing.

SME provides Science Technology and Engineering Summer Programs for middle and high school students. Visit: [www.sme.org](http://www.sme.org) for details.

Keep this information in mind when submitting new program applications in October 2008. The state has approved two new engineering programs: 1) 14.1001 – **Electrical, Electronics and Communication Engineering** and 14.3801 – **Surveying Engineering**. Please contact the Office of Career and Technical Education, if you require additional information.

**ADVANCED MANUFACTURING** arrives in Michigan from Spain. Click on the site below to read about Grupo Aernnova, a Spanish aerospace company that has relocated its new headquarters in Ann Arbor, bringing over 1,257 jobs to Michigan.  
<http://www.michigan.org/medc/news/major/combo.asp?ContentId=DF6456F7-5AE3-4179-B6F6-36BCAB058ACE&QueueId=1&ContentTypeId=7>.

## SWITCH TO METV AND EXPAND YOUR MANUFACTURING KNOWLEDGE

Now you can view and evaluate, for **FREE**, two long running video streams each month covering topics in Manufacturing Engineering magazine, before deciding to purchase them. [www.sme.org/cgi-bin/get-press.pl?&&30080001&PR&&SME&](http://www.sme.org/cgi-bin/get-press.pl?&&30080001&PR&&SME&).

## SCIENCE AND MATH CAREER VIDEOS!

**The Futures Channel** has produced over 70 high quality multimedia videos connecting mathematics, science, technology and engineering to the real world careers, so that students can envision a context and purpose for what they are learning in school. Also, the channel features a free math activity on various uses of algebra in the workplace. View their website at: [www.thefutureschannel.com](http://www.thefutureschannel.com).

**AUTOMOTIVE INSTRUCTORS** if you do not subscribe to ATech Training, Inc., I wanted to share an interesting article printed in their newsletter. Click on [www.autoipc.org](http://www.autoipc.org) and print the article: "You Teach, Why Do Students Not Learn?" You will learn about "Discovery" based learning, which helps students to develop their self teaching skills.

## INTERNATIONAL AUTOMOTIVE TECHNICIANS NETWORK (IATN)

One of our retired instructors from Lapper County Ed-Tech Center (Richard Krieger) highly recommended that I share this site with our automotive instructors. IATN, [www.iatn.com](http://www.iatn.com), is the world's largest online community of automotive repair professionals networking together to provide a wealth of resources and best practices. View their website to apply for a FREE membership and to **STAY INFORMED!** Richard, has agreed to help teachers learn how to navigate around the site. He can be reached at: [rkrieger@iavbbs.com](mailto:rkrieger@iavbbs.com).

## WOODWORKING STANDARDS

Great News! The USDA Forest Service has awarded the Architectural Woodwork Institute (AWI) a grant of \$92,000 for a skills standards project aimed at meeting the need for skilled woodworkers in an increasingly competitive global market. This grant will encourage woodwork manufacturers to train and retain new workers. To stay abreast of this project, click on: <http://web.mac.com/gheuer212>.

## MICHIGAN CAREER DAYS

On April 15 and 16, 2008 at the Ingham County Fairgrounds in Mason, Michigan, two thousand middle school and high school students from across Michigan will get the chance to experience construction work up close, using real tools, equipment, and materials. At Michigan Construction Career Days, young people will have the opportunity to:

- Operate heavy machinery, shoot angles with a transit, and learn the science behind bridge building and pavement design to name a few hands-on activities.
- Work side-by-side with professional engineers, carpenters, plumbers, and others in the construction field.
- Learn about the education and training available to help them take steps on a career path in the construction field.

Brindley Byrd, executive director of the Capital Area Construction Council in Lansing is working with a group of construction industry leaders to organize the event. "CCD events have been held with great success in 28 states since 1999," Byrd said. "I'm excited to be a part of getting this important effort started in Michigan."

The purpose of Michigan CCD is to show young people the incredible variety of opportunities that are available in the construction field, at all levels of education and experience. "Whether you're interested in operating heavy equipment, managing people, building homes, or designing the next generation of pavement for our roads, there's something for you in construction," Byrd said.

***This event is open to all schools in the state.***

***Please register as soon as possible, so that final preparations can be made.***

For more information, please contact Brindley Byrd, Capital Area Construction Council, at (517) 492-5575, or [bbyrd@camw.net](mailto:bbyrd@camw.net), or visit the Michigan CCD web site at [www.MichiganCCD.org](http://www.MichiganCCD.org). You can click in the left column on the main page to see a video about the national CCD effort.

## FIRST ROBOTICS COMPETITIONS

Coming in March 2008! Serving as a fifth year judge, Patricia Talbott will be located at Eastern Michigan University for this great robotics competition between students from various schools, displaying their technical abilities. Click on this link to get excited about First Robotics, start your own school team, or maybe teachers would like to bring their class to view competitions for FREE, before starting your own team. Competitions are held at various locations throughout Michigan. <http://www.usfirst.org/whatsgoingon.aspx>. 2008 June graduates, please apply for FIRST college scholarships early by visiting their website <https://my.usfirst.org/scholarships//index.lasso>

## HIGH GROWTH INDUSTRIES

While school administrators are preparing their Long Range Plans and New Course Offering Applications, view a variety of resources as they pertain to the high growth industries. <http://www.careervoyages.gov/>. As a result of large numbers of employees who will be eligible for retirement over the next decade, the latest projections of all job openings for each state are available at: <http://www.projectionscentral.com/>.

## TECH DIRECTIONS

Apply for a **FREE** subscription to Tech Directions magazine to stay abreast of the trends in the technology area. <http://www.techdirections.com>.

## SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH

To obtain information about engineering careers education for African American, American Indian, and Latino students and parents, educators, and mentors, visit the National Action Council for Minorities in Engineering, Inc.: [www.NACMEBacksMe.org](http://www.NACMEBacksMe.org). This organization is one of the largest providers of funds for scholarships in engineering for underrepresented minority students.

## MICHIGAN ASSOCIATION FOR COMPUTER USERS IN MICHIGAN

View this site to read about the “Digital Wish” website, which is designed to find funding for technology that teachers would like in their classroom. Teachers register, create profiles, and shop for the items they need, similar to that of a wedding registry. The teachers can then, if they choose, use this site to ask for donations from parents, the community or administration to purchase the items. In addition to this fundraising site, Digital Wish also runs a monthly grants program. Anyone who has registered and created a profile is automatically entered to win a Digital Wish Grant. The monthly Digital Wish grant schedule is here: <http://www.digitalwish.com/dw/digitalwish>

## PROFESSIONAL DEVELOPMENT FOR CTE TEACHERS

When planning regional budgets, it may be very beneficial to view **The Journal** site to look up a variety of professional development conferences/workshops being delivered from 2008-2010: <http://thejournal.com/>. On the left side of the screen, under “Resources”, click on the link entitled “Conference Calendar”.

## MACHINE TOOL AND MANUFACTURING EXPOSITIONS AND CONFERENCES

The Society of Manufacturing Engineers sponsors several events throughout the year to keep professionals trained on the latest educational programs, business practices, and career pathway resources. With more than 600 exhibitors at some of these events, you will be exposed to the most advanced equipment and the hottest trends. To view a list of the technical events, click here: [www.sme.org/cgi-bin/events.pl?&&ENTER&rel&espo](http://www.sme.org/cgi-bin/events.pl?&&ENTER&rel&espo).

**AMERICAN WELDING SOCIETY and FABTECH INTERNATIONAL** sponsors the largest event in North America. On October 6-8, 2008 in Las Vegas, NV, this event is dedicated to showcasing

a full spectrum of metal forming, fabricating, tube and pipe, and welding equipment and technology. View their website to stay abreast of the industry trends. <http://www.aws.org/w/a/show/index.html?id=Ktigr5w4>

## NATIONAL CABINET CONFERENCE AND WOODWORKING EXPO

Learn about the latest in machinery, technologies, and supplies from industry leaders, at this cabinet and woodworking expo, held on March 18-20, 2008 at Renaissance Schaumburg Hotel and Conference Center, in Schaumburg (Chicago), Illinois: [www.cabinetshow.com](http://www.cabinetshow.com).

**GREAT LAKES PRESS** is pleased to announce that it is making available free desk copies of the best-selling Introduction to Engineering textbook, **“Engineering Your Future: A Project-Based Introduction to Engineering.”** This book supports the Michigan learning standards for the *Electrical, Electronics and Communications Engineering Technology/Technician and Surveying Engineering Technician* courses of study and is recommended by Project Lead the Way for the Principles of Engineering course. For your free copy call 800-837-0201, email [paul@glpbooks.com](mailto:paul@glpbooks.com) or visit their website at [www.glpbooks.com](http://www.glpbooks.com).

Questions, comments, and/or suggestions regarding this newsletter, should be addressed to Patricia Talbott (517) 335-0359 or [talbott@michigan.gov](mailto:talbott@michigan.gov)

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